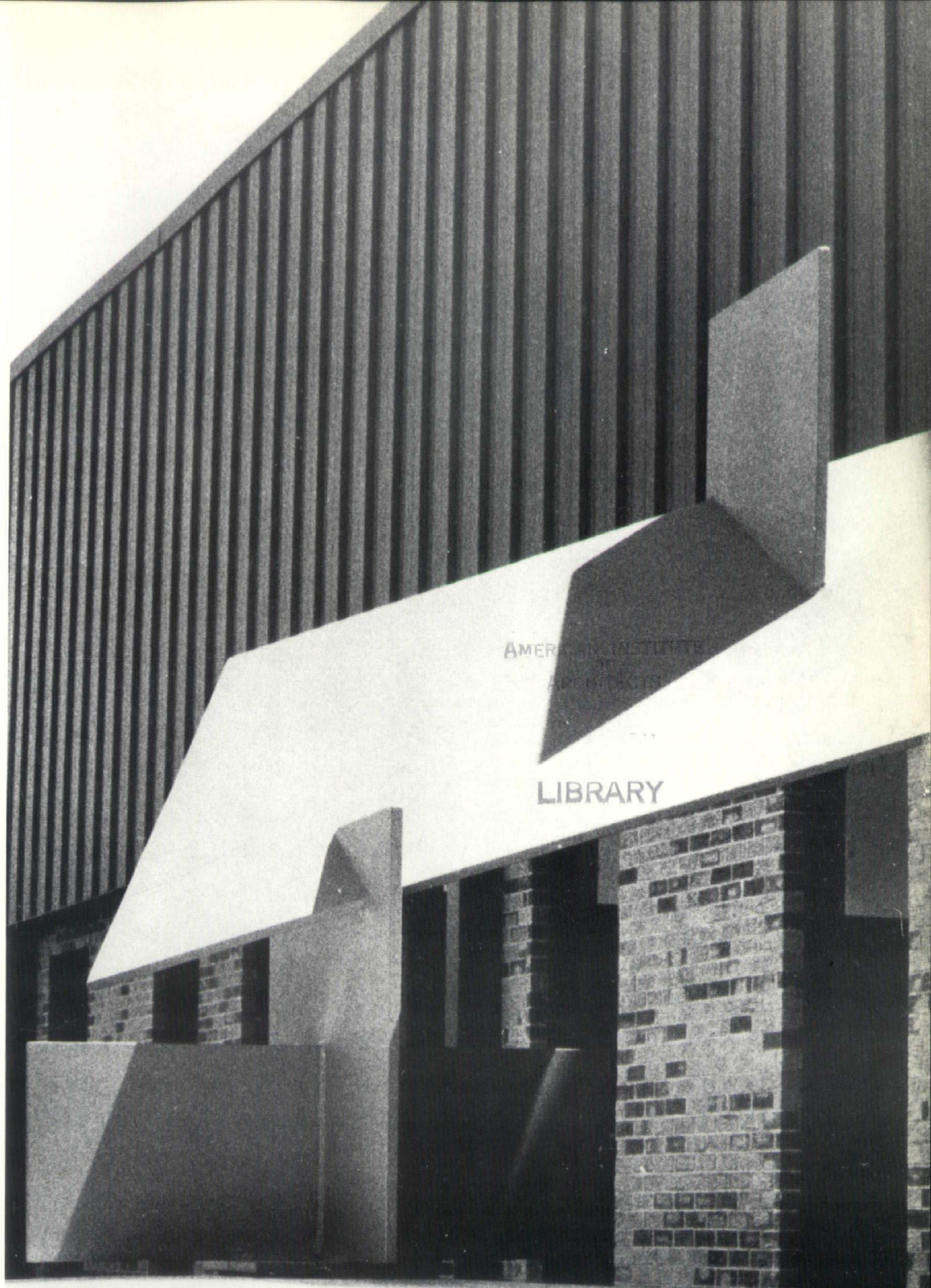
ARCHITECTURE NJ. 2-77



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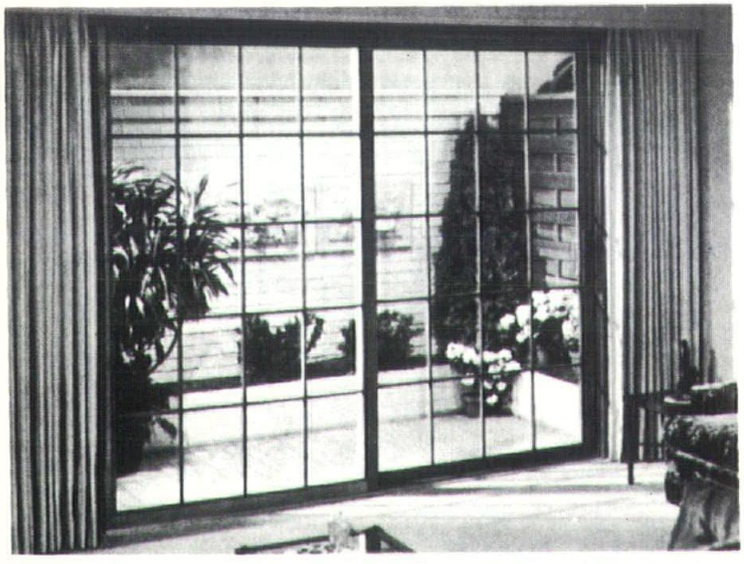
SCULPTURED DOOR

Six-panel doors shown above are the product of Caradco's wood fiber molding system. The doors have one-piece molded faces that Caradco says eliminate panel splitting, checking and shrinking, and minimize warping. The homogeneous molded-on skin has wood-grained look and feel.

PATIO DOOR
"The Warm One"

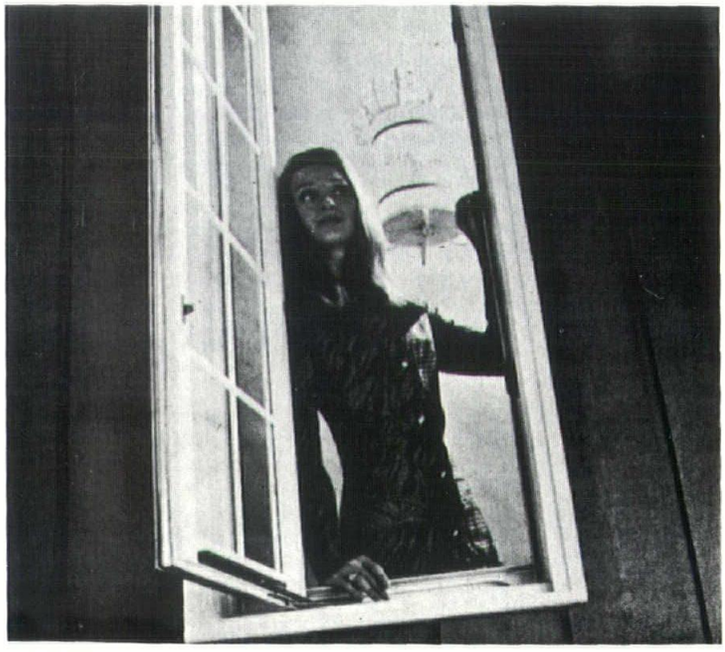


Patio doors are pleasure products: They brighten rooms, frame outdoor scenes for indoor viewing, make cookouts convenient and cocktails cozy. They put romance in the routine . . . if the doors are weathertight and trouble-free. Caradco Wood Patio Doors are both.

C-100' DOUBLE-HUNG WINDOWS

The truly classic window type, Double-Hung windows consist of two sash which operate up and down in channels in the window frame. This popular all-purpose window is used in a large percentage of homes built today. Its easy up-down adjustment allows for up to 50% ventilation. The Double-Hung window is available in most popular sizes and has proven itself to be a favorite of Traditionalists due to its early Colonial heritage. This window type incorporates the latest in production technology and is equally at home in a Contemporary setting. The Double-Hung window is versatile, easy to clean and reasonable in cost.

C-200' CASEMENT WINDOWS



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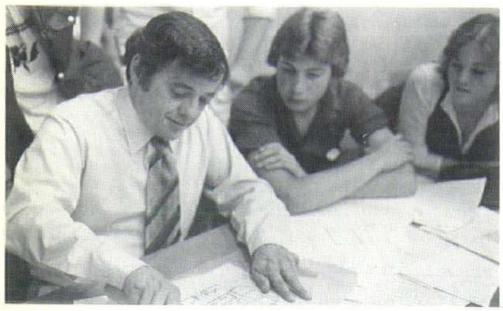
new jersey

VOL. 11 No. 2 **April/May/June 1977**

COVER: Entry Sculpture
"Projections" by Levon

The Check List

ARCHITECTS CAREER DAY



Princeton architect J. Robert Hillier shown critiquing high school architecture students on their design solutions for a solar heated dentist's office, was among nine participating architects in the sixth annual Mercer County Architects Career Day. 125 students from 8 area schools came together at Princeton Day School for a "hands on" experience of architectural problem-solving and exposure to architecture-related fields. Local architects, Jerry Ford, Tom Fulmer, Phil Holt, Harvey Myers, Bob Prigge, George Pearson and William Walker, participated in the one-on-one critique sessions.

Robert Whitlock, Chairman of Industrial Arts at Princeton Day School, conceived of the idea of exposing students to a world beyond mechanical drawing as strictly a "shop" course. Bob Whitlock, working with Bob Hillier and Melvin Jones, head of Cooperative Industrial Education at West Windsor-Plainsboro Regional High School, made Architects Career Day happen.....six times. Many Mercer County schools have upgraded their architectural offerings as a direct result of this unique program.

PEOPLE

William M. Thompson, AIA, of Princeton and his wife are founders and officers of Tyer Corporation, whose policy it is to Teach Youth Environmental Responsibility. They have prepared environmentally oriented games and written children's books embodying the concept of "living lightly on the earth." Mr. Thompson is also involved in the design of a micro-model community utilizing the energy self-sufficiency policy of the New Alchemy Institute combined with a semi-institutional approach to social and economic sharing in an ever increasing era of scarcity.

William E. Lehman, Jr., AIA, observed the 80th anniversary of his firm by making a contribution of all office material, scrap books, news articles, photos, negatives, etc. to the Newark Public Library. Many of the articles date back many years and throw some light on architectural activities during those early days. The material is entitled the "William E. Lehman Collection" and can be found in the section entitled "New Jersey Architecture."

Robert Martin Engelbrecht, AIA, of Princeton is the Chairman for the Building Research Advisory Board Awards Program. BRAB is a full division of the National Academy of Science and is this country's only interdisciplinary organization dealing with the diverse professionalism of the entire building processes.

Noel Musial, AIA, has been appointed by Governor Byrne to a special commission to help direct the development of Liberty Park in Jersey City .....*Michael Greenberg,* AIA, was elected Vice President of the New York architectural firm, The Eggers Group .....*Joseph P. Albanese,* AIA, was installed as a Commissioner of the Middlesex County Sewerage Authority.....*Kenneth Underwood,* AIA, has been named as Associate of Haines, Lundberg, Waehler of Newark....

William M. Brown, AIA, has been appointed by Commissioner Sheehan to the Uniform Construction Code Advisory Board.

Frank P. Farinella, Jr., AIA, of Irvington was inducted into the N.J. Builders Association Hall of Fame...*John Orosz,* AIA, was a feature speaker on a program entitled, Solar Energy for the Homeowner, sponsored by Brookdale Community College.....*Gerald Bischoff,* AIA, is a Certified Professional Ski Instructor.....*Brooks D. Kaufman,* AIA, owns and operates a Country Inn in New Hope, Pa, "The Inn at Phillips Mi..".....*Joseph A. Courter, Jr.,* AIA, is the Mayor of Port Republic.....*Patrick M. Gilvary,* AIA, of Red Bank, to besure that no one misses his home/office, has painted it five colors; two shades of blue, two purples and red.

MEDIPLEX IN EDISON

Site Plan approval has been obtained, and construction drawings are proceeding for a three-story, 60,000 square foot medical office building to be constructed on James Street in Edison. The planned facility, to be called "Mediplex", will be situated on a 3.86 acre site directly across from the John F. Kennedy Medical Center. The project is planned to be constructed in two contiguous phases, each of 30,000 square feet.

The long exterior of the narrow, linear building will be masonry bearing walls supporting precast concrete floor slabs. Windows will be dark, insulated glass set in dark aluminum frames.

Entrances into the facility will occur at the ends of the building. Entry will be through an impressive three-story high, glass enclosed lobby. Balconies at each level will overlook the spacious lobby. On-site parking is planned for 290 cars.

Construction of Phase I is scheduled to begin early this summer.

Architects for the project are Rothe-Johnson of Edison, New Jersey.

"M" DAY

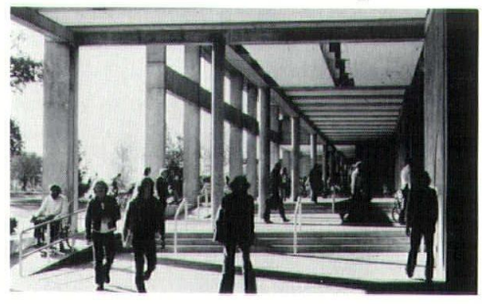
Romeo Aybar, AIA, of Ridgefield, is part of a six-member Task Force of The American Institute of Architects charged with dimensional coordination/metric conversion. With the help of the construction industry and manufacturers, the Task Force will establish measurements to govern the design profession and construction industry in advance of "M" (Metric) Day, tentatively set for February 8, 1982. Hopefully, on that day all construction measurements will go metric, although the conversion will have accelerated during the intervening years.

HIGHEST AWARD

Princeton architects Geddes Brecher Qualls Cunningham have received the American Institute of Architects 1977 National Honor Award, the highest design award given by the Institute for a building.

To be presented at the Institute's forthcoming Annual Convention, the award to Geddes Brecher Qualls Cunningham was made for the design of Robert Faner Hall, the Humanities and Social Sciences Center at Southern Illinois University, Carbondale, Illinois.

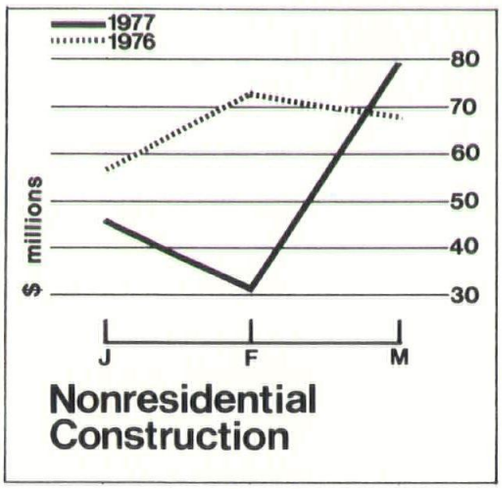
Robert Geddes was in charge of the design of the Humanities and Social Sciences Center and will accept the award. He heads the Princeton office of Geddes Brecher Qualls Cunningham. At Princeton University he is Dean of the School of Architecture and Urban Planning. ●



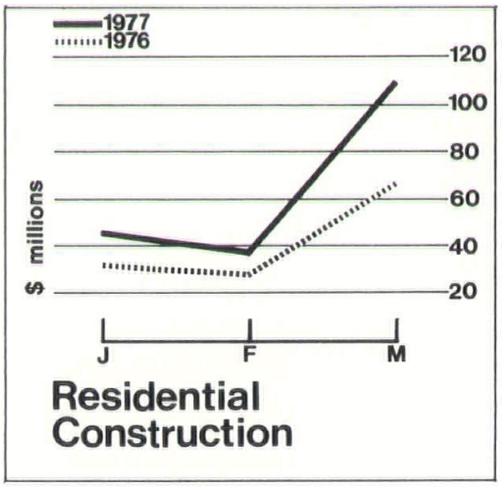
ALAN SPECTOR, AIA

Statewide Construction Activity

	January	February	March	First Quarter Totals(5) 1977	1976	Percent Change from 1976
Nonresidential (1)	$46,502,000	$30,294,000	$79,909,000	$156,705,000	$198,758,000	Minus 21%
Residential (2)	44,784,000	39,362,000	110,130,000	194,276,000	125,657,000	Plus 55%
TOTAL BUILDING	91,286,000	69,656,000	190,039,000	350,981,000	324,415,000	Plus 8%



Nonresidential Construction



Residential Construction

CONSTRUCTION ACTIVITY BY COUNTIES (3)

	January	February	March	First Quarter Totals(5) 1977	1976	Percent from 1976
ATLANTIC						
Nonresidential	$2,220,000	$ 200,000	150,000	$ 2,570,000	$ 3,117,000	Minus 18%
Residential	602,000	560,000	1,387,000	2,549,000	4,729,000	Minus 46%
TOTAL BUILDING	2,822,000	760,000	1,537,000	5,119,000	7,846,000	Minus 35%
CUMBERLAND						
Nonresidential	—0—	239,000	57,000	296,000	845,000	Minus 65%
Residential	450,000	308,000	1,815,000	2,573,000	2,477,000	Plus 4%
TOTAL BUILDING	450,000	547,000	1,872,000	2,869,000	3,322,000	Minus 14%
HUDSON						
Nonresidential	322,000	632,000	561,000	1,515,000	17,317,000	Minus 91%
Residential	191,000	5,711,000	20,176,000	20,533,000	923,000	Over 100%
TOTAL BUILDING	513,000	6,343,000	20,737,000	22,048,000	18,240,000	Plus 21%
MERCER						
Nonresidential	7,124,000	1,349,000	730,000	9,203,000	21,892,000	Minus 58%
Residential	522,000	395,000	3,055,000	3,972,000	6,698,000	Minus 41%
TOTAL BUILDING	7,646,000	1,744,000	3,785,000	13,175,000	28,590,000	Minus 54%
MIDDLESEX						
Nonresidential	9,980,000	4,044,000	11,723,000	16,747,000	25,846,000	Minus 35%
Residential	2,491,000	4,034,000	14,199,000	20,724,000	10,142,000	Over 100%
TOTAL BUILDING	12,471,000	8,078,000	25,922,000	37,471,000	35,988,000	Plus 4%
MONMOUTH						
Nonresidential	1,493,000	6,298,000	11,905,000	19,696,000	11,009,000	Plus 79%
Residential	3,400,000	1,657,000	11,533,000	16,590,000	10,698,000	Plus 55%
TOTAL BUILDING	4,893,000	7,955,000	23,438,000	36,286,000	21,707,000	Plus 67%
PASSAIC						
Nonresidential	1,980,000	3,045,000	2,688,000	7,713,000	5,220,000	Plus 48%
Residential	995,000	1,029,000	1,483,000	3,507,000	4,480,000	Minus 22%
TOTAL BUILDING	2,975,000	4,074,000	4,171,000	11,220,000	9,700,000	Plus 16%

FOOTNOTES:

(1) Nonresidential buildings include commercial, manufacturing, educational, religious, administrative, recreational, and other buildings not designed for shelter.

(2) Residential buildings include houses, apartments, motels, dormitories, and other buildings designed for shelter.

(3) Statistics for selected counties shown are based on figures derived from standard metropolitan areas within the counties.

(4) All statistics are based on monthly reports of contracts for future construction, prepared by F.W. Dodge Division of McGraw-Hill Information Systems Co.

(5) Cumulative figures for "Quarterly Totals" reflect adjustments not distributed to the individual months.

With this issue of Architecture New Jersey, we begin a quarterly review of the construction outlook for the state. Regular features of this report will include a wrap-up of building activity for the preceding quarter based on statistics compiled by the F.W. Dodge Division of McGraw-Hill Information Systems Co.

Drawing upon the expertise of knowledgeable members of the construction community in New Jersey, we will endeavor to analyze major trends affecting the construction outlook of the coming quarter. This analysis will include reports on such items as economic conditions, monetary policies, governmental building programs, and other trends influencing construction activity.

Forecast Second Quarter '77

Despite a slow start at the beginning of the year, construction activity in New Jersey moved upwards significantly in March, the last reporting period. Both nonresidential and residential building are well ahead of last year's rates, and this augurs well for the coming quarter.

Mr. Joseph J. Keiling, Board Chairman of Brown's Letters, is enthusiastic about the construction industry in the state for 1977. "The first quarter of 1977 was well ahead of 1976," Mr. Keiling stated, "and with a steady increase of private work, particularly industrial and commercial building, plus an increase in public work, I foresee an upward move over 1976."

According to Mr. Keiling, many large manufacturers are proceeding with plans for new corporate headquarters, and have them either in planning or bidding stages, or actually under contract. New hospital construction, plus the upturn in residential work, Mr. Keiling noted, all point to a decided improvement in figures for the year 1977.

Other sources indicated that funds for current public works projects have already been committed, but these funds will basically have a one-time effect, and do not seem to be producing a major impact. New public works funding will probably not have any effect until late this year or early 1978.

The money market is generally good. Excess money is available, and this is reflected in an increasing market for residential construction. While this favorable financial climate is aiding the housing market, it is not yet causing significant improvement in the commercial market, according to our sources, but should eventually do so later in the year.

Viewpoints

The Dangers of ASHRAE 90-75

TERRY H. PARKER, AIA

EDITOR'S NOTE: New Jersey is now considering the adoption of a State Energy Code to be implemented in the fall of this year. This code is based upon standards developed by the American Society of Heating, Refrigeration and Air-conditioning Engineers, Inc. (ASHRAE), and should be of upmost importance to anyone concerned with construction in the state of New Jersey.

The following article by Terry Parker, AIA, Chairman of the Energy Committee of the New Jersey Society of Architects, is excerpted from a lengthy letter written by Mr. Parker to James Schlesinger, assistant to the President on National Energy Policy.

I wish to call your attention to what I consider an immediate danger to the cause of energy conservation. The danger is in the form of ASHRAE Standards 90-75 and 100-P. In our attempt to establish guidelines in standards for energy conservation, the easiest approach to take is the developing of prescription type standards. Unfortunately, any regulation of this sort tends to freeze conservation at a particular point in time. The ASHRAE standard was originally written three years ago and is already being exceeded in new construction. However, there is enormous pressure on the Government "To do something to save energy". The adoption of this standard now will institutionalize standards developed immediately in the wake of the Arab oil embargo but which are being exceeded in current architectural and engineering practice.

I would like to now briefly discuss some of the shortcomings of the ASHRAE Standards 90-75 and 100-P. The mandatory prescriptive requirements for thermal efficiency in the exterior skin of buildings very often is not an important consideration in many building types. To take a couple of examples, let us first look at a fast food or restaurant type of use.

Requirement for air to be exhausted from the kitchen actually requires an enormous amount of fresh air to be introduced into the internal environment of the restaurant in order to provide air to go up the exhaust hood. This in some instances can be so great that the amount of heat lost through the external skin of the building can be totally disregarded, and in fact, there would be no difference if there would be no walls in the building at all. What is important in this type of use is that the energy that is going up the flue and the heat off of the cooking equipment be used to generate the heat required to maintain the internal environment of the building.

In the case of many office buildings, the heat generated by the artificial lighting and the heat generated by the people in the building and the computers is more than enough to maintain the interior environment, and the loss of energy through the walls of the building to the exterior environment is relatively minor when related to the internal heat sources. What is more important than thermal efficiency of the external skin, is that the amount of energy that is not used efficiently by the equipment in the building be reused a maximum number of times before being allowed to escape. Therefore, we recycle heat from refrigeration equipment, from computers, and from lighting, to heat the internal environment when heat is required and revent this heat out during the air conditioning season so that we do not place an additional load on the air conditioning system.

Unfortunately, these issues are not at all discussed in the ASHRAE Standard 90-75, which assumes that we will always cool through the use of air conditioning any internally generated heat source and that we will conserve energy by applying additional insulation to the building's skin. This simply is not the fact.

An additional consideration should be given to what we term the fly wheel effect. We have traditionally designed the equipment in buildings to be able to handle peak loads, which means in many cases that we are generally operating the equipment in the buildings at less than their maximal efficiency. It is very important that we use "Fly Wheel" effect in the building to produce an average load rather than dealing with peak loads. Buildings already have somewhat of a fly wheel effect in being able to delay the maximum air conditioning load until 4 to 5 o'clock in the afternoon, even though the maximum sun load and temperature load probably occurs earlier in the afternoon. This is a result of the mass in the building construction. By careful design we could increase the time delay in the building construction to 12 hours, thereby allowing the coolness of the evening temperatures during the air conditioning season to carry through the hottest part of the day.

"If we reduce consumption of energy in existing buildings 30-50%...this would amount to a new energy source... in this nation."

ASHRAE 90-75 also totally disregards the advantages of using daylight for lighting inside a building. In fact, the entire standard ignores the use of daylight as a means of reducing the energy consumption in a building. In fact, the use of daylight is probably the most efficient use of solar energy that we can have in a building. More energy in large structures is spent for artificial lighting than for the heating and air conditioning combined. In addition, more air conditioning is required just to cool down the heat generated by the artificial lighting.

All these issues and many more are not considered in these mandatory regulations. I submit to you that too much money would be spent in the cost of regulation both by the Government and in private industry to meet these mandatory regulations and the net result would be less energy savings than we could actually achieve. It is not energy efficient to spend a lot of time dealing with red tape and this is what would result from a mandatory regulation of energy consumption.

Since it is in fact a good investment to conserve energy anyhow, I suggest to you that we would do much more good by instituting tax incentives if we feel we must prime the pump for energy conservation techniques for a limited period of time. I would suggest a maximum of a five year period for tax incentives. After the five years are up, the public consciousness of energy conservation would change and it would readily recognize that conservation makes economic sense.

We must particularly direct our energies in conservation toward conservation in existing buildings. We replace our existing building stock at the rate of 2% per year and it would require over 50 years before we would have an enormous impact just from the replacement of building stock. Since there is relatively little first cost impact in new construction, first cost for energy conserving techniques very likely would employ energy conservation in all buildings when they are originally built. I have found that to be the case in the buildings that we have worked on during the past couple of years and discussions with my professional colleagues have echoed that view. However, there must be some incentive for a person to go in and spend money on an existing building when he does not have to put any money into it at this point.

If we could reduce the consumption of energy in existing buildings by 30 to 50%, which I believe is easily accomplished, this would amount to a new energy source equal to ten to fifteen per cent of the total energy consumed in this nation. The energy saved would be completely imported energy sources. Since the country still has substantial sources of domestic fossil fuels, an effective energy conservation program would make the dollar the strongest currency in the world and our economy the strongest in the world. But we must resist the temptation to overregulate what is essentially a correction in the economic equation. Overregulation of energy prices got us into this mess, overregulation of energy conservation will bury us in it. ●

Planning For People

Design Materials with Sense Appeal

EDWARD N. ROTHE, AIA

As architects, we are the unique design professional. Because of our education, training, and experience, we are the design professional expected to provide the comprehensive view of what the built environment should be and to coordinate our talents with the talents of other designer professions in order to successfully create that environment. If we are to be successful in this task, we must be able to understand and utilize to the fullest potential possible the design materials which can influence the planning and design of that environment.

The central theme of this issue is the use of design materials which, although commonly considered to be on the periphery of the architect's design circle of responsibility, nevertheless are important to and can have significant impact on a project's overall design success.

In our highly technical culture, characterized by our need of finding the most practical and rational solution, the use of innovative but machine-like building materials has resulted in the loss of human values relative to design. Obviously we should be interested in the latest structural technology and newest construction techniques, but as architects we need also to be interested in creating environments responsive to people and their needs.

Plants, pavements, and pools of water, graphics, sculpture, and light are design materials which affect people through their senses. They are materials which people can react to and interact with. In contrast to the fixed materials which comprise the building, which is itself a fixed and static object, those design materials can provide movement and sound, and change dark to light. They are materials which people can touch, smell, put their hands in, and walk around.

As design materials, plants, in exterior application, can be used to create and manipulate space as well as to give color and texture, and to achieve pattern. In interior application they can serve to soften an environment and can be used to aid in acoustics and act as a screening device.

Pavements, such as brick, block, gravel, and stone, used as a flooring material, can either unify or divide spacial areas, be used to achieve variety in both color and texture, and to produce material patterns.

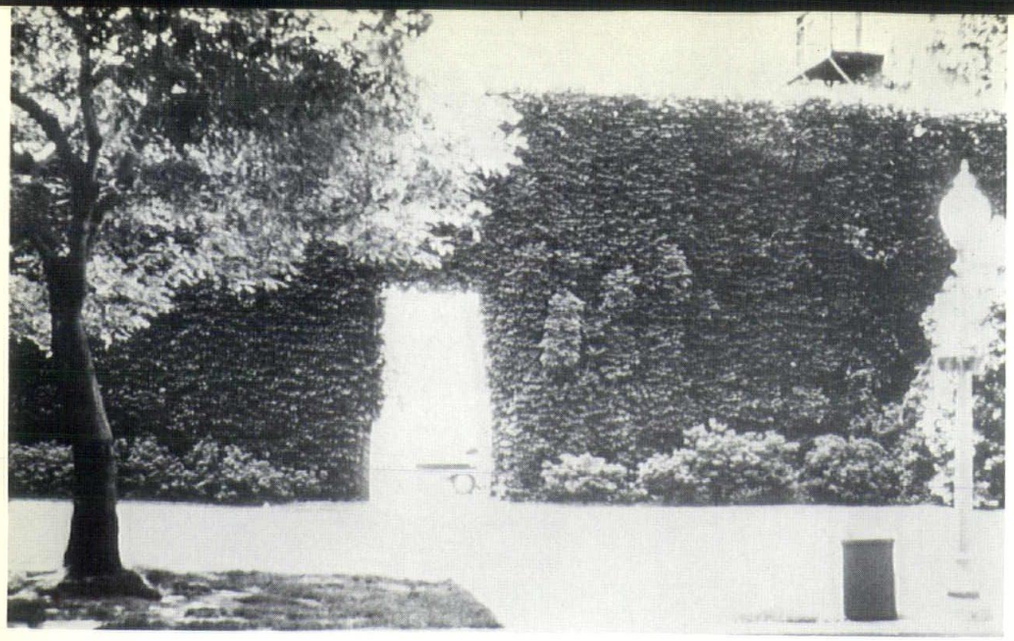
Water has the ability to make their surroundings alive with sound and motion and to appeal to eye and ear.

Sculpture can be used to complement a major space, provide a focal point, or be used for scale or variety in materials.

Graphics is a decorative design material that can be used to create space or define an important place.

In addition to its ability to provide visability, light can create a change in mood, create a sense of place, establish a pattern on walls and ceiling, and enrich texture.

Through the skillful use and careful incorporation of these design materials, the architect can be successful in creating total environments, responsive to human values and people's needs. ●



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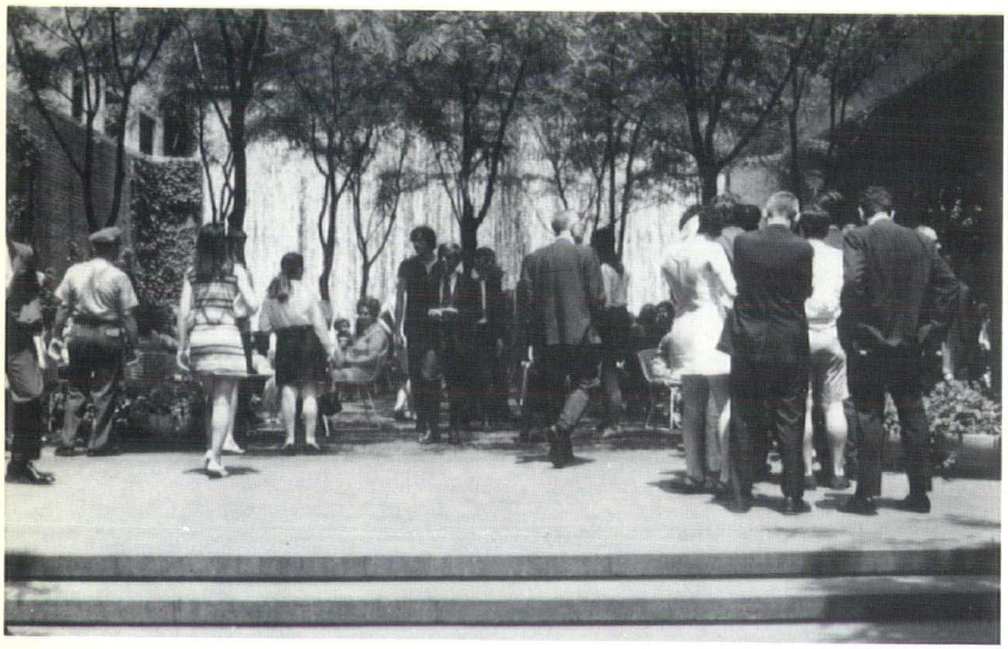

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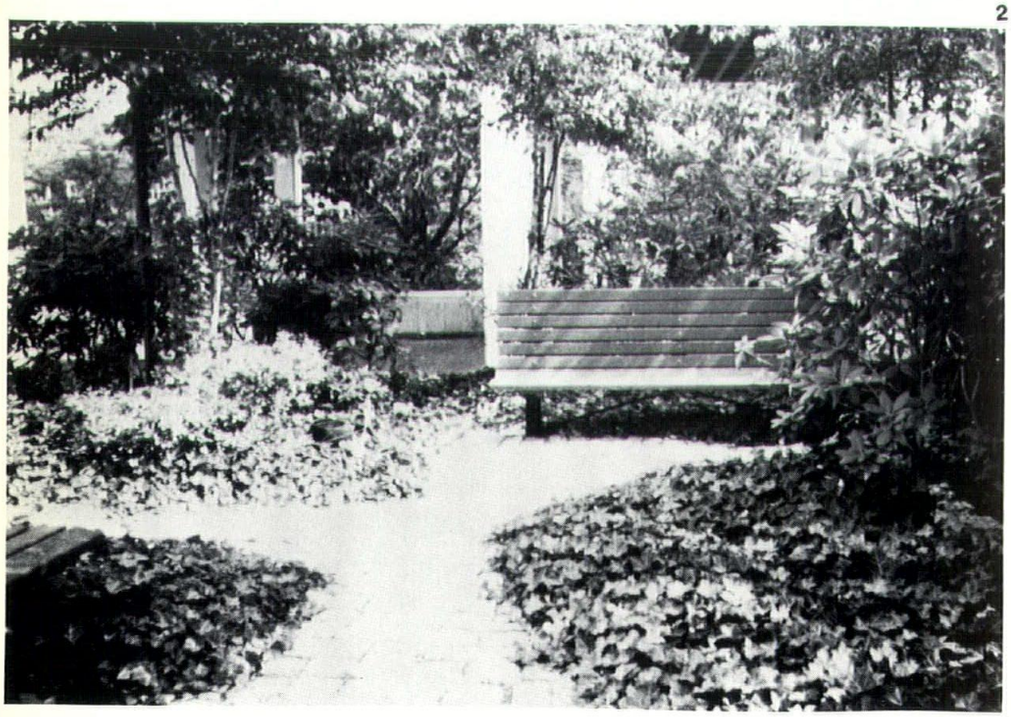

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Architects who deal with the creation and manipulation of space as the most significant media of the profession often ignore the exciting potentials of using plants and land form to purposefully create space out of doors. The same three-dimensional volumes, the cubages of air we refer to as space, with infinitesimal variation, can be manipulated for mood, suggested movement or rest, and sequence of participation both in and out of structures.

In its simplest abstration, space is evidenced in two forms — the channel space which is linear with greater dimension of length than width, therefore suggesting movement; and the reservoir space with dimensions of length and width equal or apparently equal, therefore suggesting statisticity. Although the basic design elements — color, texture, and scale — are significant in creating the personality of spaces, one additional factor, the degree of spacial definition, has major impact. Spacial definition, the feeling of enclosure, is determine by the physical and psychic makeup of the perceiver. More particularly, one's cone of vision is created by the placement of the eyes, creating an aperture of approximately 100 degrees horizontally and 50 degrees vertically.

Obviously, the remoteness or closeness of the perceiver to the space definer, the more complete the spacial definition or the sense of enclosure. Irregardless of the degree of definition, spaces out of doors, like rooms in a building, can be as enclosed by walls, floors, and ceilings in the landscape. Walls are effectively created by berming earth, planting hedges, and both formal and naturalesque massing of trees and shrubs.

Various flooring effects, textures, and patterns, achieved with the use of land contour, ground cover vines, and shrubs, as well as pavers, gravels, stone, mulches, etc., is very often thought about and used in creating outdoor spaces. The overhead plane, however, is seldom considered with as much consciousness.

The ceilings of outdoor spaces, built of branches, can be designed to express mood and spirit. The spacial qualities of a Gothic cathedral, for example, sinwy upreaching columns, vaulted spaces, and awesome interior volumes, can be achieved out of doors as well. The massive ascending limbs, arching branches, and drooping flexible twigs of a grouping of American elms can create a space personality of Gothic spirituality.

CAPTIONS:

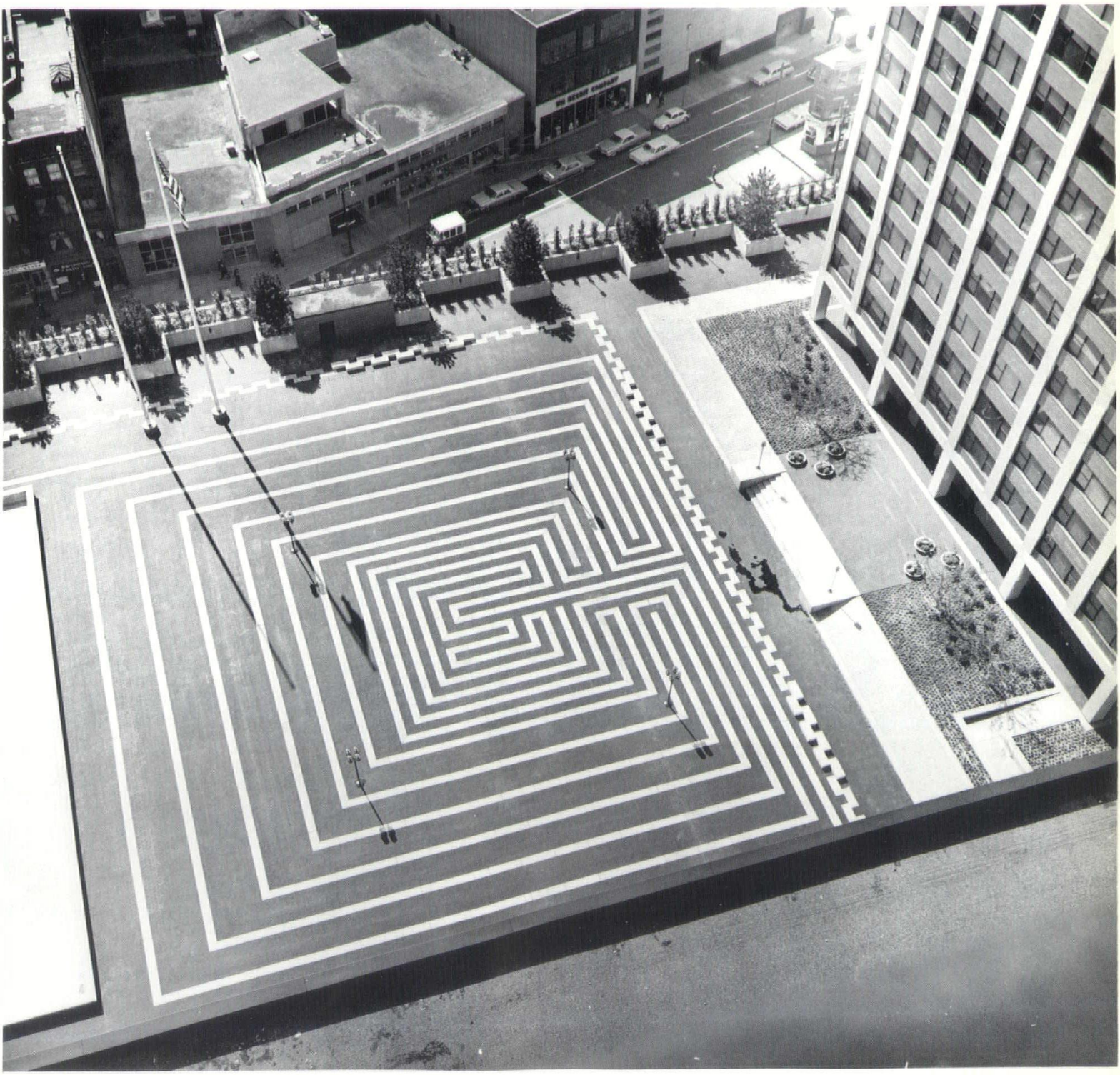
1. A Green Wall
2. Paley Park
3. Brooklyn College
4. Chatham Center

Plants and Pavements

For flat, low ceilings consider the pin oak; for dense hard ceilings, the linden; for soft pendulous mood overhead, the willow or weeping cherry; for little or no visual penetration upward, the linden or horse chestnut; for a transparent ceiling, the honey locust; and for filtered light, the sycamore. Whatever the intended mood or species selected to achieve an effective space-defining ceiling, trees must be planted closely one to another. At close spacing the individuality of a single tree is no longer recognized, and the group becomes a single element. Spacing can be formally organized with the entire ceiling built of the same species or at random with the ceiling comprised of more than a single species. All of the variables of plant life — the change of size and habit as the ceiling tree matures, the seasonal changes of foilage color, texture, flower, and fruit, etc., — play a dynamic role in selection.

Although plants have dynamic, positive impact visually, as well as ecologically, on almost any man-manipulated environment, opportunities to purposefully use the media to define space and to create spacial sequence out of doors is often overlooked. ●

CREDITS:
Narrative Material by Luciano Miceli, A.S.L.A., Miceli, Weed, Kulik, East Rutherford,
Photographs supplied by Miceli, Weed, Kulik; Zim & Breen



Interior Plantings

MICHAEL C. McANENY, AIA

Interior tropical planting is quickly becoming an important design material in contemporary commercial architecture. Since its introduction as a visual and acoustical screening device for open landscape office planning and its utilization as a building's central focal point or atrium, the use of planting to enhance architectural interiors has developed into a sophisticated science.

While several hundred species fall into the tropical foliage plant category, about only seventy-five are commonly used in interior applications. Tropical plants are preferred for these uses because they are perennially evergreen and have no seasonal or periodic variation in growth or foliage density, they can remain healthy and achieve modest growth under relatively low lighting conditions, and they are relatively insensitive to humidity variations.

The great majority of tropical plants are grown in nurseries in Florida, generally in shaded conditions of from 4,000 to 5,000 footcandles, rapidly shipped to other parts of country in trucks equipped with special environmental control systems and gradually conditioned in warehouses over a three to four week period to the lower light levels they will be receiving in the actual installation.

Plants employed in interior installations require certain minimum footcandle levels to be sustained in a healthy and attractive condition and to maintain a slow definite growth. It should be noted that the footcandle level is not the only factor contributing to a tropical plant's wellbeing. The duration of its exposure at a certain light level and the quality of the light's diffusion are very important. Accordingly, plants can be maintained at quite low footcandle levels as long as the light is available for a sufficient period and it is incident on essentially all foliage.

When comparing the use of live tropical foliage plants in a project to their artificial plastic counterparts, the architect should consider the psychological disappointment and unpleasant physical sensation associated in viewing and touching an artificial plant.

The decision to employ live tropical foliage plants ideally should be made as early as possible in a building's planning stages because of the amount of coordination required in structural and mechanical design. Once the decision to employ live indoor plants is made, consideration must be given to floor load, ceiling height, natural light, artificial light, air temperature, air humidity, air movement, building use and schedule of use, and plant location. ●

1

CAPTIONS:

1. E. R. Squibb & Sons, Princeton, N.J.
2. Johnson & Johnson Baby Products Co., Piscataway, N.J.
3. The Ford Foundation, New York, N.Y.

CREDITS:

Photographs supplied by Foliage Plant Systems, Inc., and The Everett Conklin Companies

2

3

Water

BURTON W. BERGER, AIA

The medium of a fluid material such as water presents a challenge to architects that to date has been handled primarily by landscape architects.

There are many ways water can be used to enhance, embellish, soften, and provide a certain richness to architecture. Water has the qualities of texture, sound, reflection, and movement. It can be used as fine mist and as a bubbling mass. It can move vertically, horizontally, or it can be as motionless as a mirror. The Japanese use water in their gardens for the qualities of sound and serenity. The soft sounds of the water as it passes through the bamboo shoot and down into a small pool, thus creating a concentricity of circles, is a unique example of sound and geometry in unison.

Paley Park in New York City is an imaginative use of water as texture, sound, and movement. The experience of sitting in this park and hearing the water fall almost drowns out the noise of the City. Another waterscape is Peavey Park in Minneapolis, Minnesota, a combination of reflection, sound, and movement. The mirror pool reflects while the tall stainless steel tubes carrying the water vertically overflow at the top, allowing the water to cascade down hugging the sides of the tubes. From the pools at the bases of these fountains, water continues to overflow down in translucent sheets to other levels below and eventually ending up in the large reflection pool.

Several waterscapes have been designed to include people as an integral part of the experience of the design. The sculptural fountain in the first Village Center in Reston, Virginia, and People Park in Portland, Oregon, both were designed to allow people to sit, walk through, and actually feel the water.

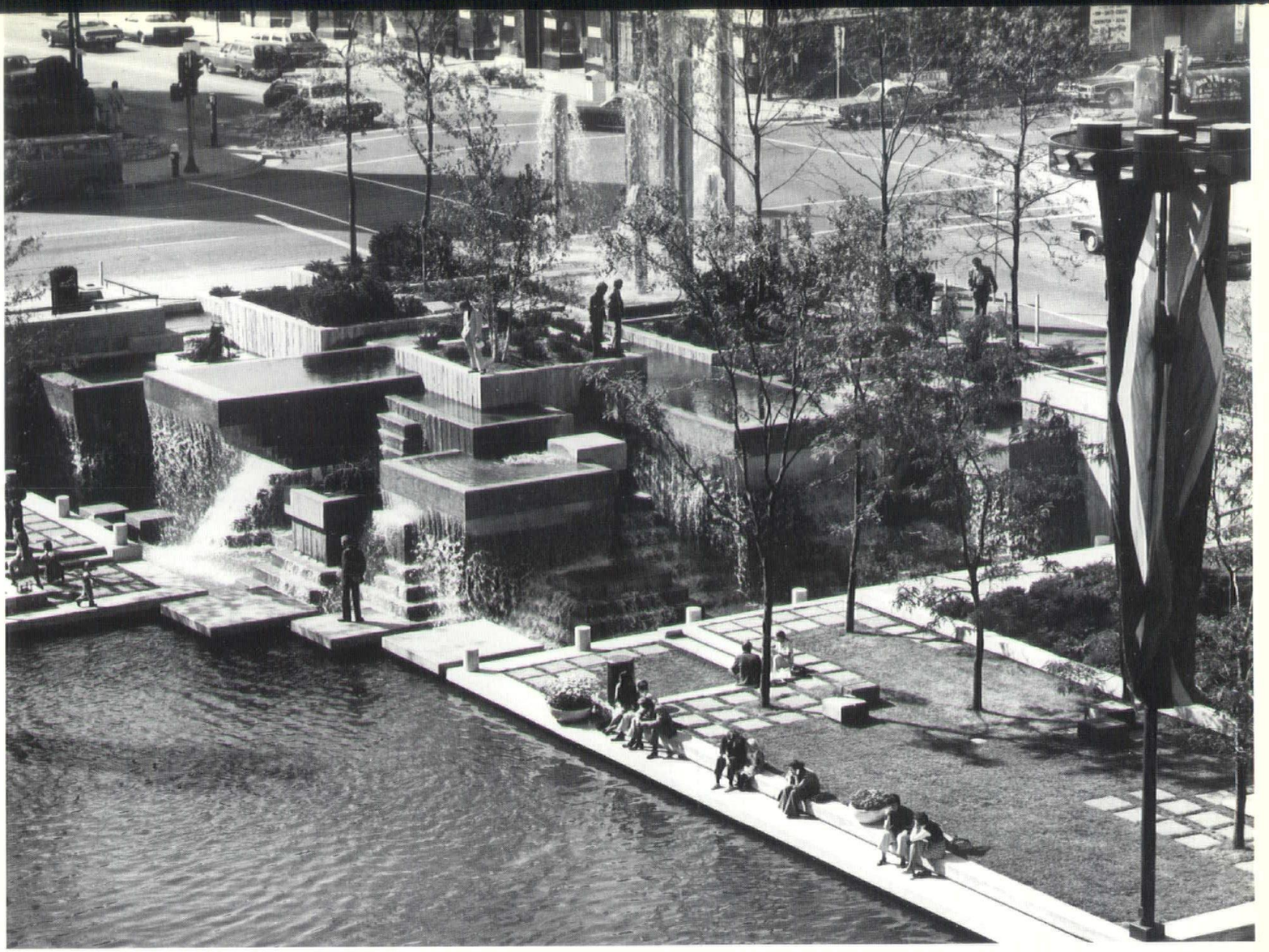
The use of water as a design material can transform buildings into dynamic environments. ●

CREDITS:

Photographs supplied by Conklin & Rossaut, M. Paul Friedberg & Associates, Zion & Breen & Associates

PHOTO CAPTIONS:
1. Reston Center
2. Peavey Park
3. Paley Park

1



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Graphics

Distinctive graphics not only relate information, but also extends itself into a pleasing, contemporary, decorative environment. As a material graphics has been a successful solution on several projects.

Two of the pure graphic applications are Henri Bendel and Robert Lewis in New York City. The Robert Lewis Corporate Offices and Showroom is an environment with a wealth of historic architectural ornament. By using two-dimensional graphic elements to clarify a new three-dimensional division of space, new areas were defined as well as an environment created that is pleasant to the eye and maintains a strong, contemporary feeling.

Henri Bendel's storefront lacked the luster that would encourage their clientele to venture through their doors. Graphics was the solution in lieu of the more expensive alternatives. To accent the existing architectural ornaments, color was applied by hand to the various motifs, each one defined with a distinctive color. This was a subtle, but effective improvement and did not obstruct the traditional environment in which the store is located.

The shoe boutique within the store needed to relate to the traditional storefront facade, yet invoked a contemporary mode. Motifs, hand-painted on the shoe boutique glass facade, express the traditional feeling with contemporary materials and graphics.

Graphics is not a complete problem-solver, but a tool to enrich the space an architect or interior designer might be working on. Graphics is a discipline in creating space as much as an architect or interior designer uses structural materials to create space.

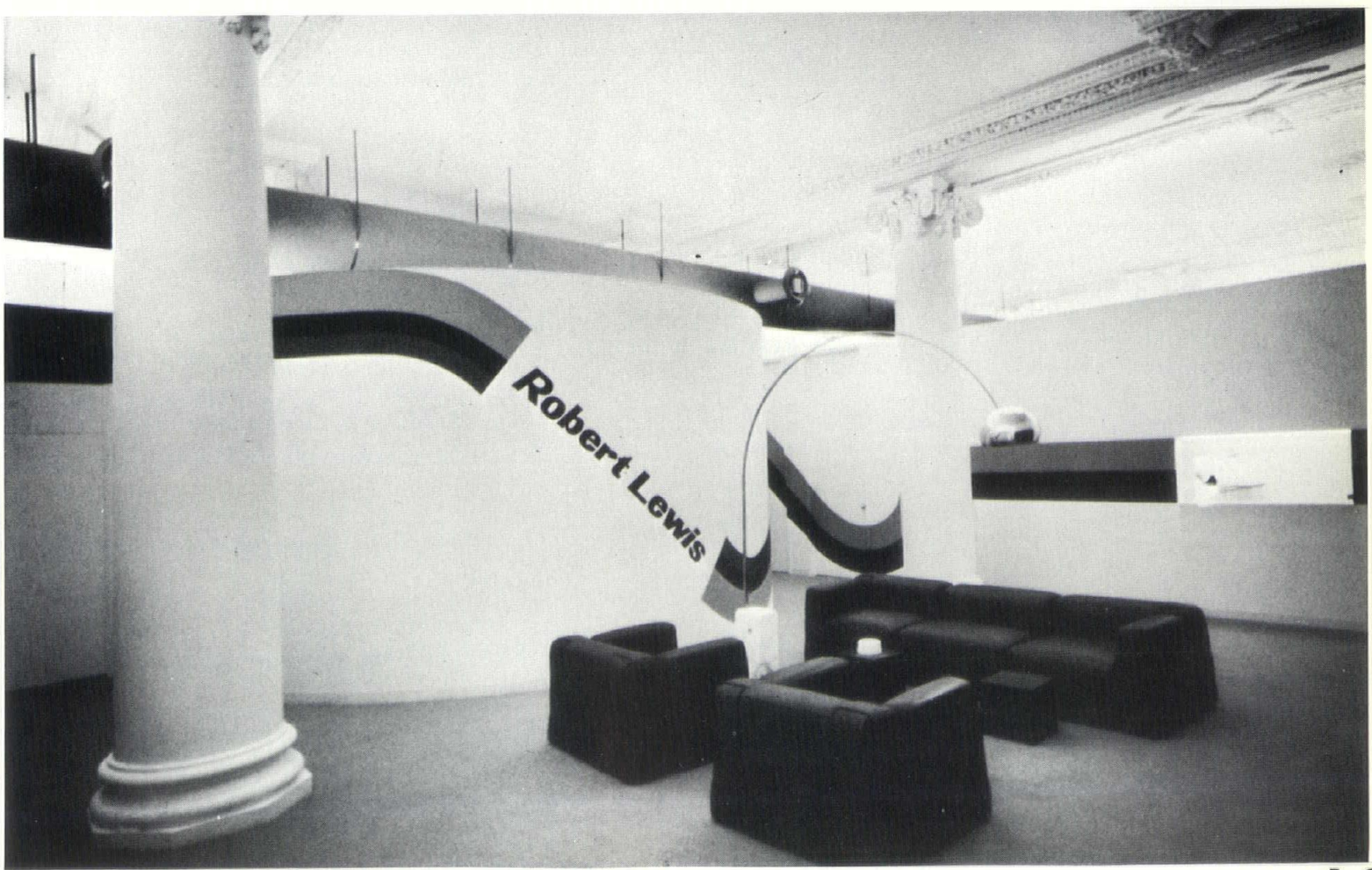
At the outset of solving a space problem, graphics, architecture, and interiors should run parellel to achieve the ultimate goals, which will result in the best use of design materials. ●

CREDITS:
Narrative Material by Sonda Miller and Lauder Bowden, Walker-Grad, Inc., New York, New York
Photographs supplied by Walker-Grad, Inc., New York, New York

1

CAPTIONS:
1. Henri Bendel's
2. Robert Lewis Showroom
3. Robert Lewis Offices

2



3

Sculpture

S. THEODORE KESSLER, AIA

Since earliest times, sculpture and architecture have coexisted. It would be difficult to visualize the great Gothic cathedrals and Rennaisance palaces devoid of their sculpture. Sculpture and architecture may even be one and the same as in the example of the pre-historic monoliths at Stonehenge.

The similarities between architecture and sculpture are obvious since both exist in a space-time reference. Both may express themselves as either space-penetrating ("positive") or space-enclosing ("negative") elements.

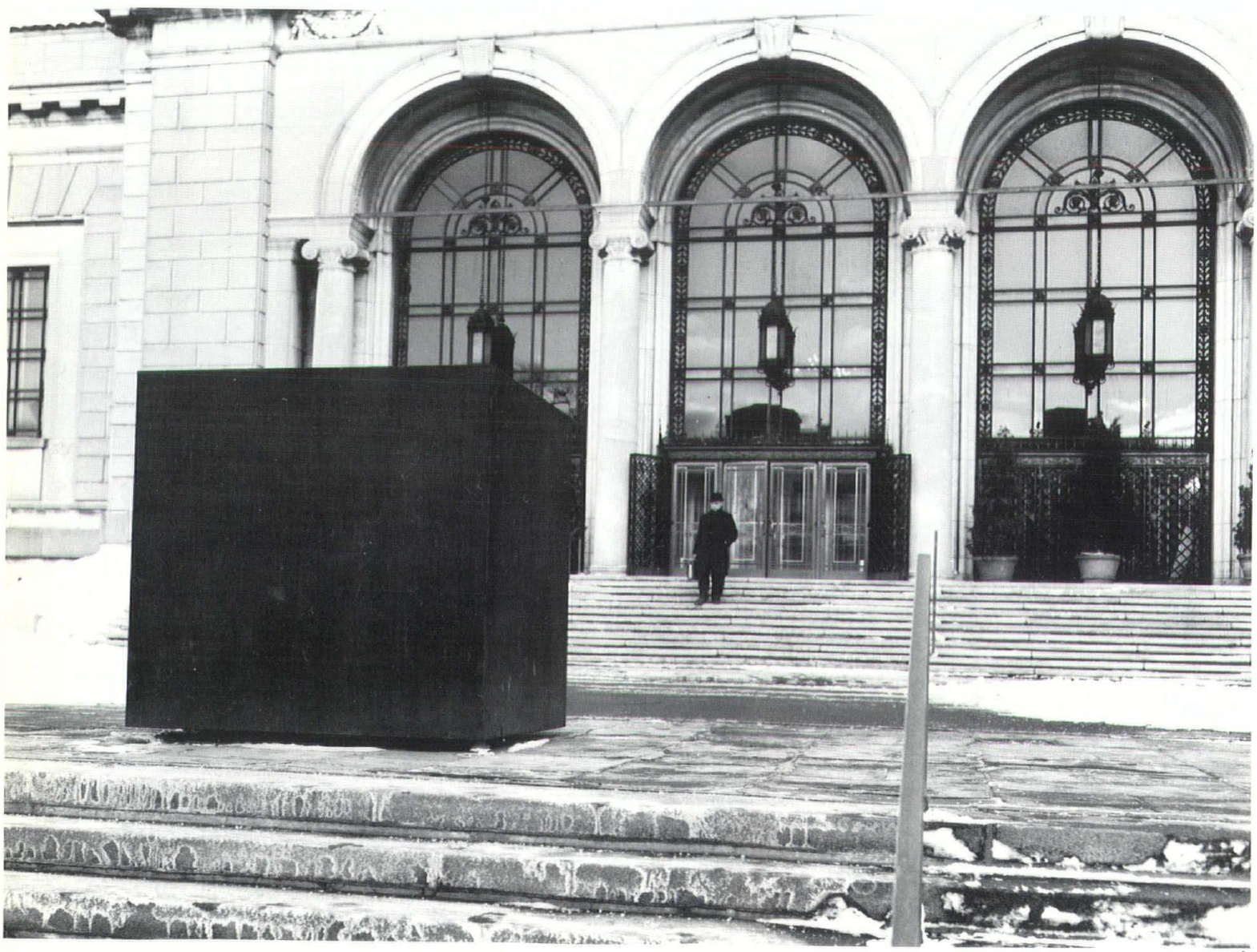
Sculpture can be used as a focal point in an architectural composition, lending scale and importance to an area. Building components and sculpture can enhance each other utilizing textural and color contrast as in the example of a smooth white marble or metal sculpture set against a background of dark rusticated stonework.

The traditional combination of sculpture and water such as used in fountains, continues today to offer limitless possibilities to enhance the interior and exterior of buildings.

Sculpture in relief form can give prominence to a wall surface in conjunction with such other art forms as graphics and photo-murals.

Today's buildings offer some significant, though not numerous enough examples of the merging of the ancient arts of architecture and sculpture. ●

CAPTIONS:
1. Die, by Tony Smith
2. Spruce Run State Park, N.J.
3. St. Adelbert's Church, Staten Island. Artist Charles Vukovich



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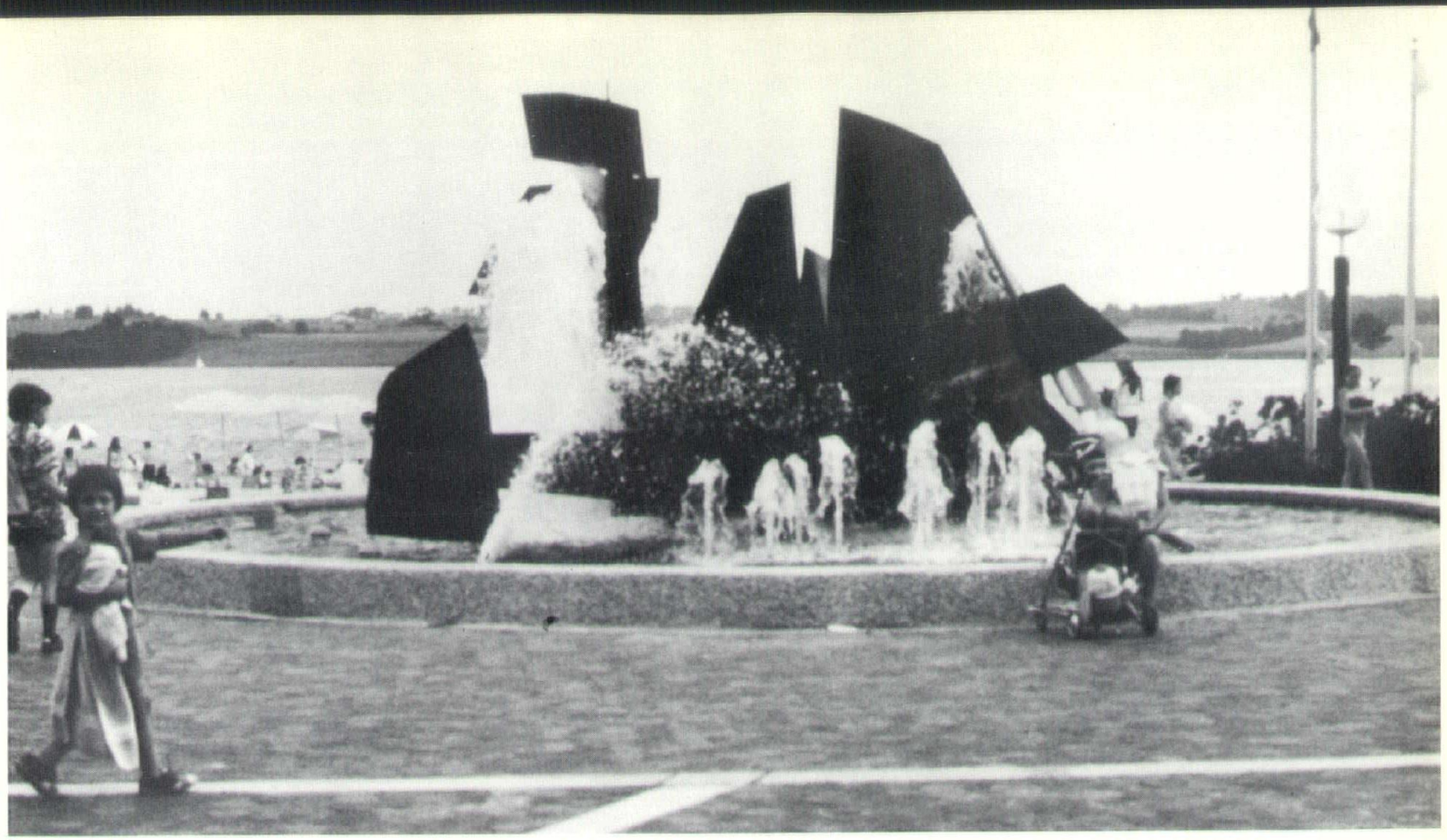

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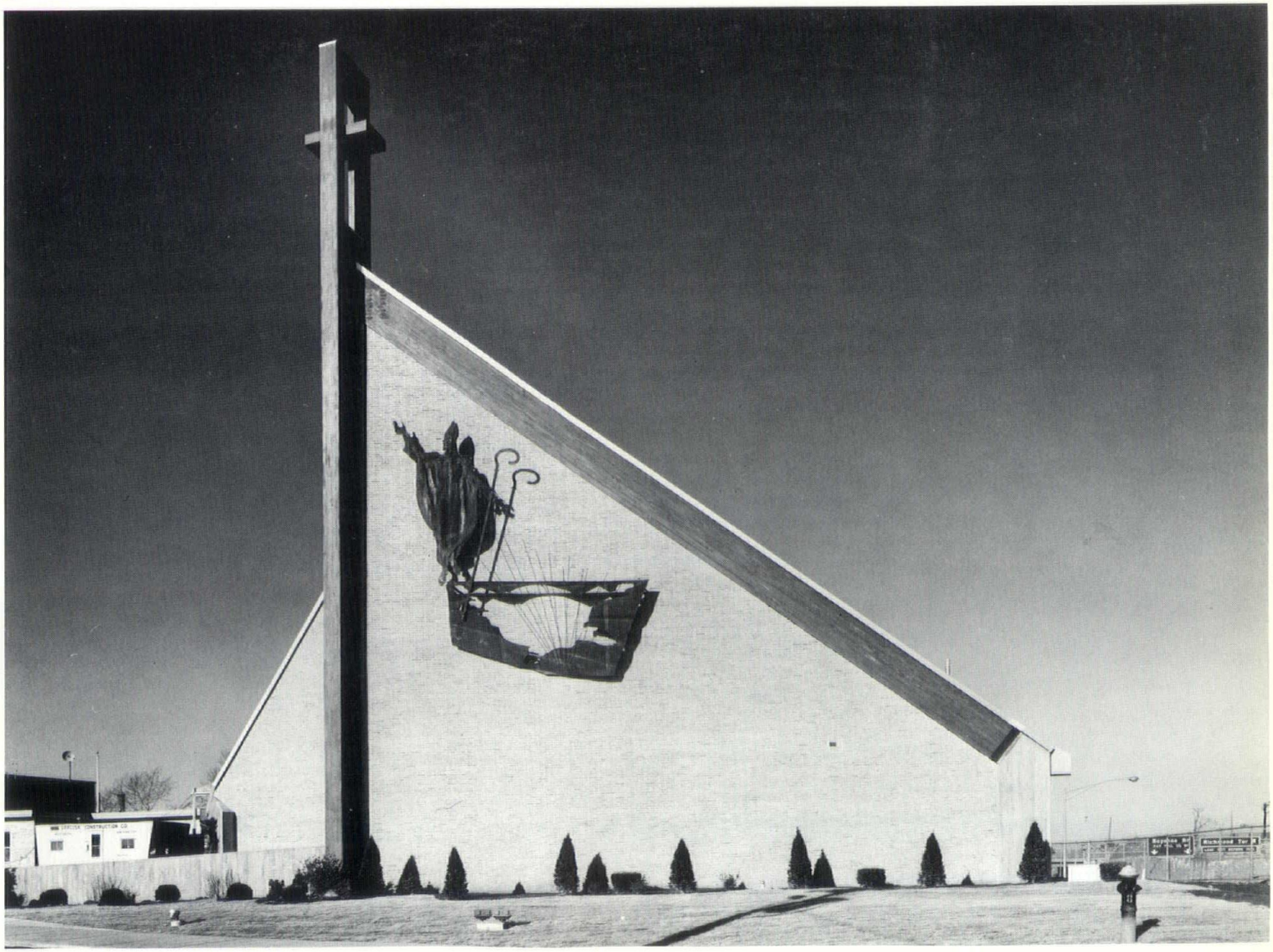


3

Lighting

In architecture, light is the "invisible material". It cannot be weighed, touched, or seen. Its effect, however, cannot be overlooked. The architect needs to understand the use of light in order to produce a lighting solution which will be esthetically and functionally satisfactory. New lighting sources are being developed to illuminate the exterior as well as the interior of buildings and are being integrated with landscape development in the design of plazas and interior malls.

Lighting may be used to enrich materials and textures. For example, if flat lighting is directed at an exposed brick wall, with deeply recessed joints, much of the texture of the wall will be lost. Or if the wall is marble, the surface should be honed since polished marble will act like a mirror and merely reflect any light focused on it.

In exterior applications lighting can be used after daylight hours to emphasize building detail, or exterior lighting can be used to reinforce or announce entry into a special space or area or to create a place for people.

Light can be used to create a change in mood or to produce desired contracts among the various areas of a building which serve different functions.

People should experience a change in place and feeling as they move from lobby to elevator, to corridor to office, to cafeteria. If an executive dining room is intended for transacting business in a relaxing atmosphere, the lighting, in contrast to the corridor outside, would produce a soothing effect. Similarly, when an office space is lighted for efficiency, the lighting in the cafeteria should have the effect of making workers feel comfortable during their break — a palpable psychological and physiological change should take place as a result of movement from one area to another.

In the successful use of lighting, the color of the light source should be compatible with the colors of materials. Because objects reflect certain wave lengths and absorb others, the color an object appears to have depends on the color of the light falling on it. If the source is lacking a particular color, it can't be reflected by the object. When selecting a light source don't confuse its apparent color or its reflection on a white surface, with its capacity to reveal reflected color. For example, a warm white fluorescent lamp used in a pale green room will cause the walls to appear gray. Or an architect who installs wood paneling for the purpose of creating a warm, rich effect, and then uses a cool white lamp, will find all the warmth in the wood bleached out.

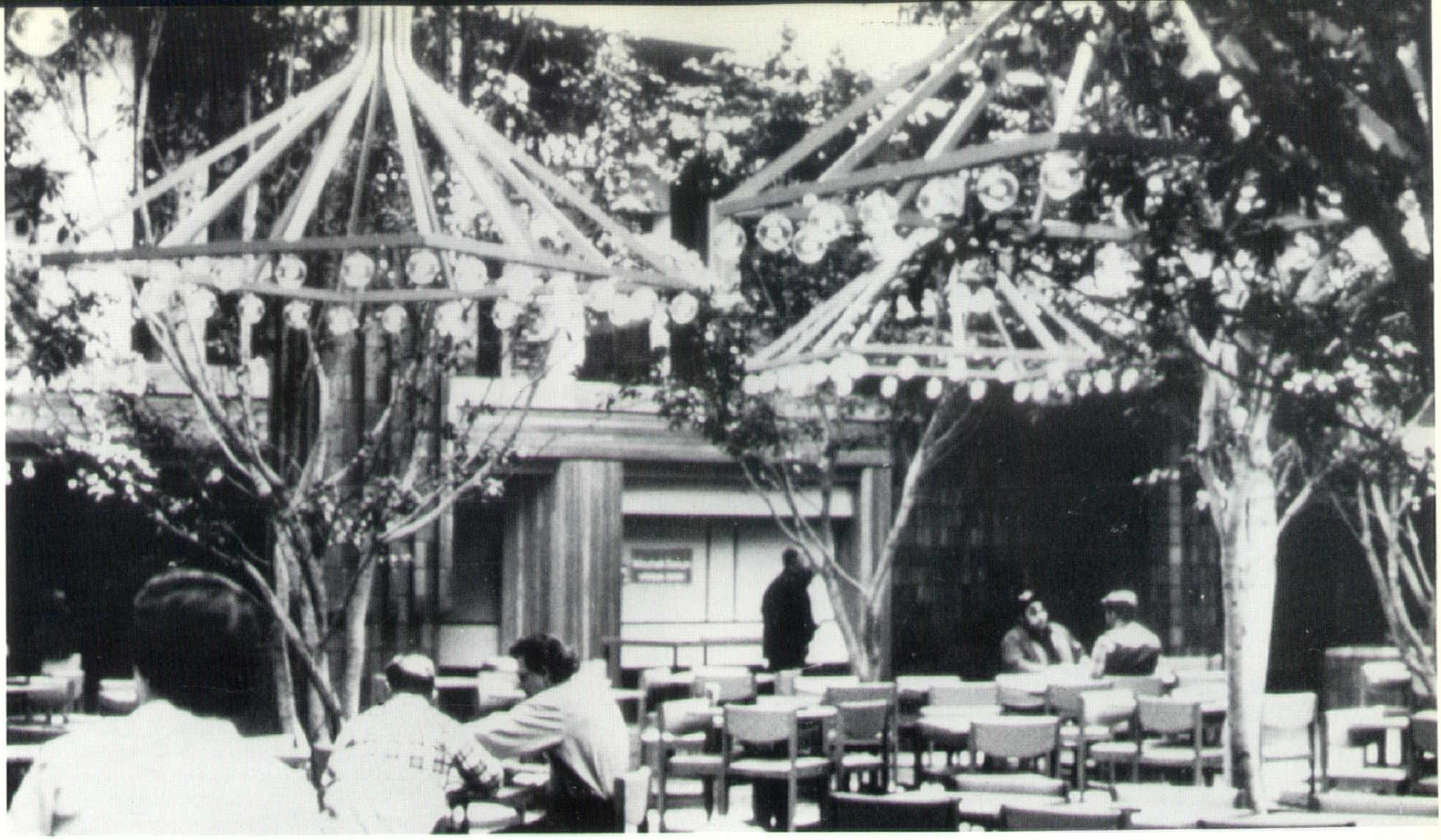
In addition to providing visibility, light can be used to make occupants speak louder or softer, to compose a space or feature a shape, while the lack of lighting can be used to minimize undesirable features. One instance of a light doing "work" is a narrow white fluorescent stripe applied on the ceiling to give direction as well as illumination.

In a period of concern over energy management, use of lighting is playing a larger and larger role in building design. ●

1

CREDITS:
Narrative Material by David A. Mintz, I.A.L.D., David Mintz, Inc., New York
Photographs supplied by Bajer Industries; David Mintz, Inc.; and Gruzen & Partners

CAPTIONS:
1. Giving illumination and direction.
2. Wyoming Mall, Pa.
3. Temple B'Nai Abraham, Livingston, N.J.
4. As an art form



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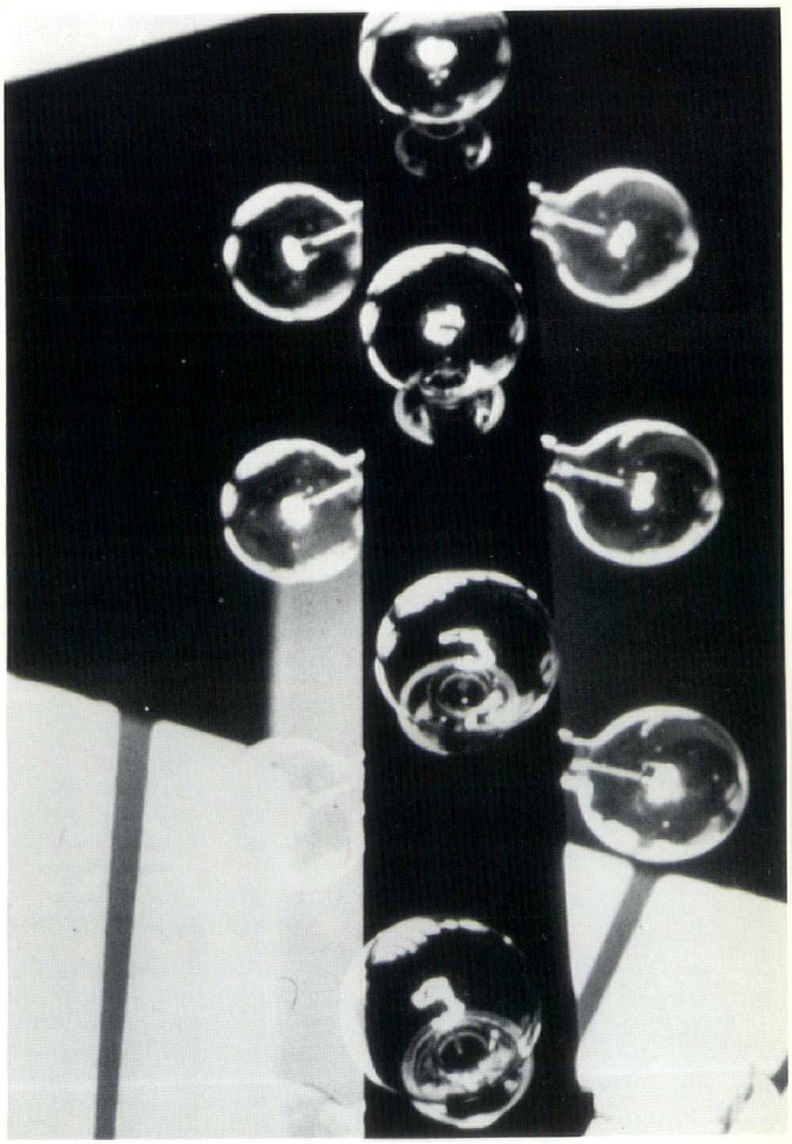

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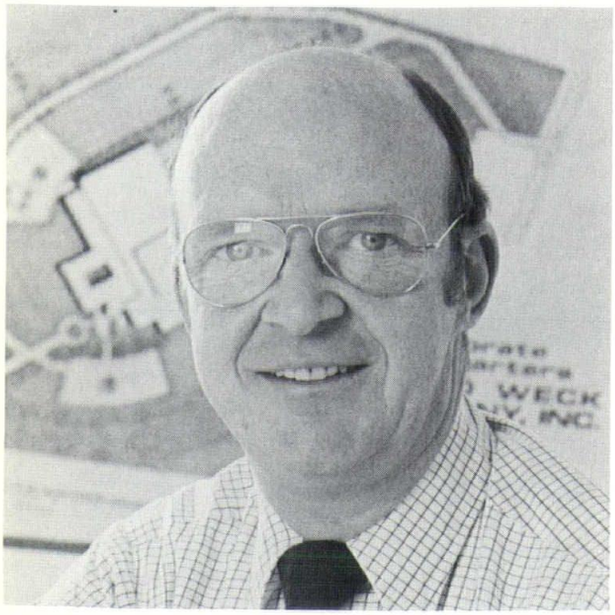
Office Profile 1



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Hightstown, New Jersey

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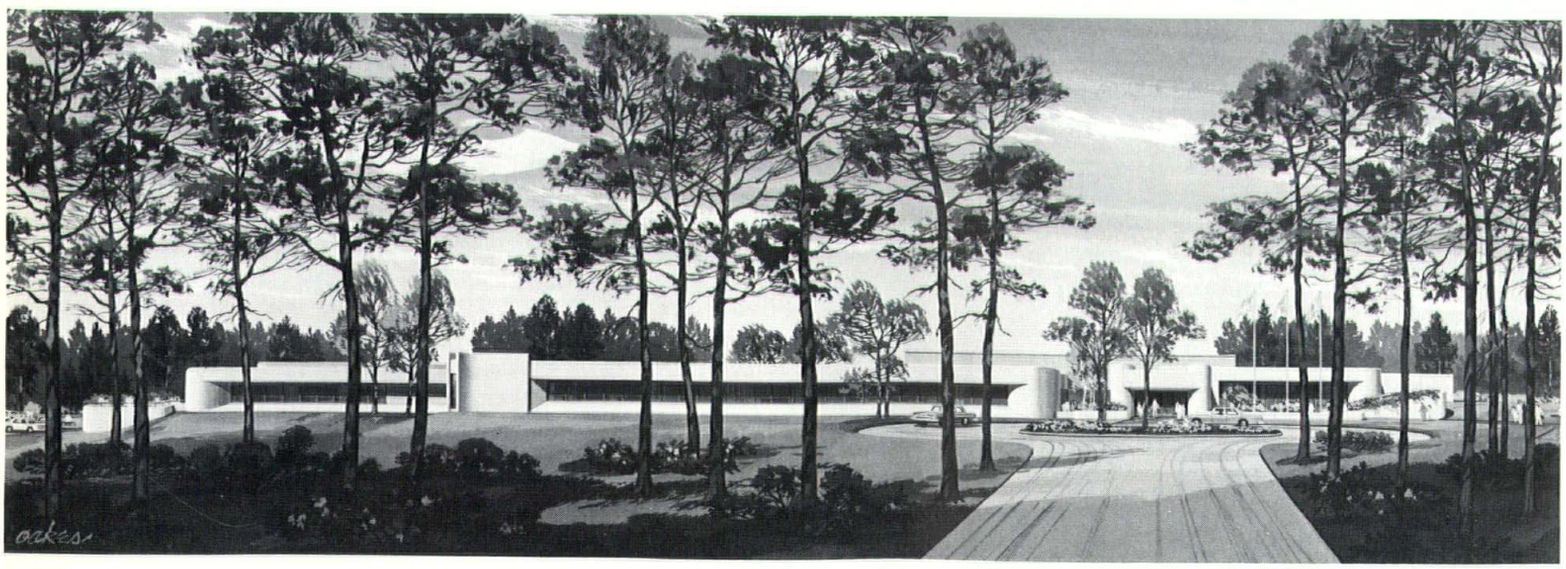

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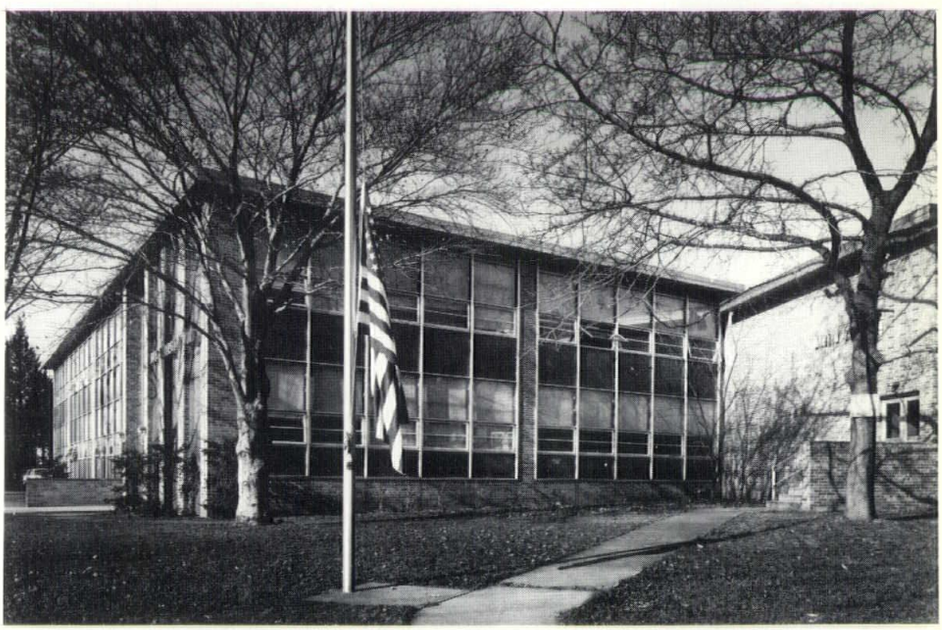

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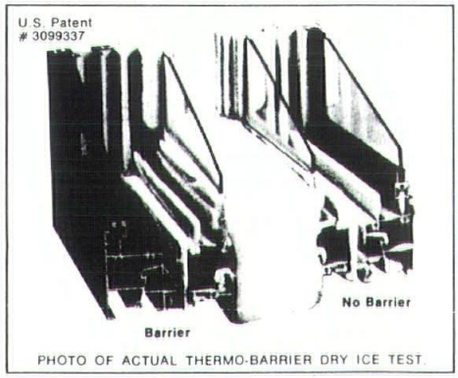

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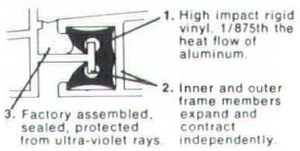

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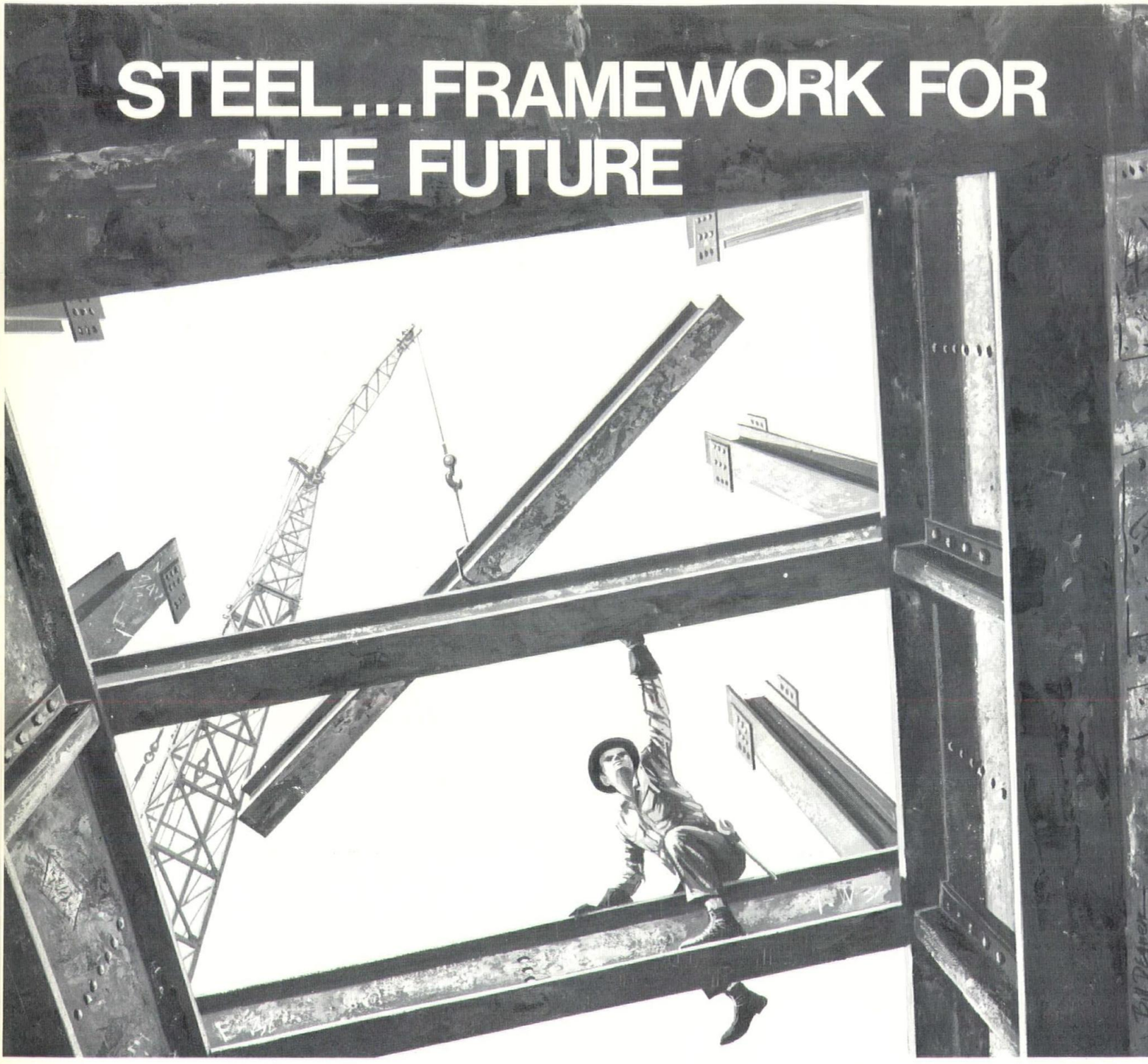

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